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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/360,419	07/23/1999	AMIR DORON	HP10991005-1	4168

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EXAMINER	
WU, DOROTHY	

ART UNIT	PAPER NUMBER
2615	13

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/360,419	DORON, AMIR	
	Examiner	Art Unit	
	Dorothy Wu	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-19 and 21-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-19 and 21-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. In view of the Appeal Brief filed on 3/22/2004, PROSECUTION IS HEREBY REOPENED. A new ground of rejections is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131, or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2. Applicant's arguments, see Paper No. 12, filed March 22, 2004, with respect to the rejection(s)of claim(s) 11-19, 21-25 under Kato, U.S. Patent 6,148,031 in view of Parulski et al, U.S. Patent 5,440,343 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kato, U.S. Patent 6,148,031, in view of Parulski et al, U.S. Patent 5,440,343, and further in view of Kho, U.S. Patent 6,167,473.

3. The applicant has argued: "There is no express suggestion in either Kato or Parulski et al to combine the references as proposed by the examiner." The office respectfully disagrees. The office recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Kato and Parulski et al are directed to cameras that can generate both still images and motion images. Kato teaches the continuous capture of still images and the capture of single still images by tagging an image within the continuous sequence of still images when a request to take a single image is received (col. 3, lines 41-53). Parulski teaches that pixels are selectively read out of an image sensor in a motion mode of operation to enable the capture of images at a rate of thirty frames/second using a standard video rate output clock (col. 2, lines 15-21). Kato teaches a sampling frequency of 13.5 MHz (col. 4, lines 16-17), and Parulski teaches a video rate output pixel clock of approximately 12 MHz in a motion mode of operation (col. 2, lines 19-21). It would have been obvious to one of ordinary skill that as Kato and Parulski read out pixel data at comparable rates when capturing continuous still images to be used as motion images, the resolution and amount of data within the images are the same in Kato and Parulski. Parulski further teaches a still image mode of operation wherein all pixels are read out of the image sensor (col. 5, lines 22-25). It would have been obvious to one of ordinary skill that the still images read out in the still mode of operation would have a greater resolution than those

read out in the motion mode of operation, and therefore, the still images would be of higher quality than the motion images. One of ordinary skill would have incorporate the still image mode of operation of Parulski into Kato to make an apparatus that enables a user to switch from a motion mode of operation to a still mode of operation in which images of higher quality may be obtained.

The applicant has argued: "Kato is not concerned with generating a sequence of low resolution still image files (e.g. JPEG files) for conversion into a motion video sequence (e.g. MPEG files)." The office respectfully disagrees. Kato is concerned with generating a sequence of low resolution still image files (JPEG) for conversion into a motion video sequence (MPEG) (col. 3, lines 40-46, 54-63; col. 7, lines 52-56; col. 9, lines 12-14).

The applicant has argued: "The examiner's proposed modification of Kato's complex inter-frame correlation and intra-frame coding scheme to accommodate a different coding scheme used by Parulski et al amounts to prohibited hindsight reconstruction and would not have had a reasonable chance of success." The office respectfully disagrees. The combination of Kato and Parulski does not require the modification of inter-frame correlation and intra-frame coding to accommodate a different coding scheme. See above.

The applicant has argued: "The combination of Kato and Parulski et al proposed by the examiner would not operate; Parulski et al use a special image sensor that would not be compatible with the image pickup device or digital signal processor circuit 14 of Kato, and when the prior art references taken in combination produce a seemingly inoperative device, the references would teach away from the combination." The office respectfully disagrees. Parulski teaches that the image sensor produces NTSC images (col. 5, lines 32-34), and Kato teaches that

the NTSC standard is used in his invention (col. 4, lines 11-16). If the image sensors of both Parulski and Kato produce image signals according to the NTSC standard, then the image sensor of Parulski would be compatible with the digital signal processor circuit 14 of Kato. Therefore, the combination of Kato and Parulski would be operative.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 11-14, 16-18, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, U.S. Patent 6,148,031, in view of Parulski et al, U.S. Patent 5,440,343, and further in view of Kho, U.S. Patent 6,167,473.

Regarding claim 11, Kato teaches a method of generating images with a digital camera, comprising the steps of: selectively generating a sequence of low resolution (JPEG compressed) still image files and storing the image files in the memory (first memory 20) in accordance with a predetermined still image data compression standard (JPEG) (col. 3, lines 41-47); retrieving the low resolution image files from the memory; converting the low resolution image files (JPEG files) to a motion video sequence (MPEG files) in accordance with the predetermined motion image data compression standard (MPEG), and storing the motion video sequence (second memory 22) (col. 3, lines 54-63). Kato teaches the generation of a sequence of still images (col. 3, lines 47-53; col. 5, lines 9-16).

Kato does not teach the generation of high resolution still images or the selective generation of high resolution still images or low resolution still images. Parulski teaches two modes of operation, a still mode of operation in which all pixels are read out of the image sensor, and a motion mode of operation in which selective pixels are read out of the image sensor (col. 5, lines 22-39). Parulski teaches that pixels are selectively read out of an image sensor in a motion mode of operation to enable the capture of images at a rate of thirty frames/second using a standard video rate output clock of 12 MHz (col. 2, lines 15-21), which is comparable to the 13.5 MHz clock of Kato (col. 4, lines 16-17). It would have been obvious to one of ordinary skill that image data produced at comparable clock frequencies have comparable resolutions. Therefore, the still images read out in the still mode of operation of Parulski would have a greater resolution, and thus, be of higher quality, than those read out in the motion mode of operation. One of ordinary skill would have incorporate the still image mode of operation of Parulski into Kato to make an apparatus that enables a user to switch from a motion mode of operation to a still mode of operation in which images of higher quality may be obtained.

Kato in view of Parulski do not teach that the conversion of still images to the motion video sequence is performed with firmware. Kato teaches that the conversion is performed using software (col. 3, lines 58-61). Kho teaches that either software or firmware may be used to implement a function (col. 2, lines 37-38). Therefore, it would have been obvious to one of ordinary skill in the art to implement the conversion of Kato in view of Parulski using firmware. One of ordinary skill would have been motivated because it is well-known in the art that firmware and software are equally capable of implementing a step in a method.

Regarding claims 12 and 13, Kato teaches that the predetermined still image data compression standard is JPEG and that the predetermined motion image data compression standard is MPEG (col. 9, lines 12-14).

Regarding claim 14, Kato teaches the use of JPEG (col. 9, lines 12-13). If a camera employs JPEG, it is an inherent feature of the camera to include a JPEG file format conversion component.

Regarding claims 16 and 17, Kato teaches that the motion scenes are captured at the standard rate of thirty frames per second, which reads on a rate sufficient to ensure substantially non-jerky motion when the motion video sequence is replayed (col. 1, lines 52-55).

Regarding claim 18, Parulski teaches the generation of a first sequence of high resolution still image files in response to each momentary actuation of the trigger switch, and the generation of a second sequence of low resolution still image files in response to the trigger switch being actuated and held for a predetermined duration longer than the momentary actuation (col. 3, lines 16-32).

Regarding claim 21, Kato teaches a camera (col. 1, line 11) comprising an image sensor (CCD **10**) for receiving light and generating output signals representative of an image (col. 3, lines 18-19). The housing in which the sensor is mounted is inherently taught. Kato also teaches a manually actuable trigger switch, which reads on a shutter button (col. 3, lines 35-38); a circuit (digital signal processor circuit **14**) for processing the output signals in response to actuation of the trigger switch (col. 3, lines 22-24); and a control circuit (system control circuit **26**) connected to the processing circuit (digital signal processor circuit **14**) for generating a sequence of low

resolution (JPEG) still images files and converting the sequence into a motion video sequence (col. 3, lines 41-63).

Kato does not teach the generation of high resolution still images or the selective generation of high resolution still images or low resolution still images. Parulski teaches two modes of operation, a still mode of operation in which all pixels are read out of the image sensor, and a motion mode of operation in which selective pixels are read out of the image sensor (col. 5, lines 22-39). Parulski teaches that pixels are selectively read out of an image sensor in a motion mode of operation to enable the capture of images at a rate of thirty frames/second using a standard video rate output clock of 12 MHz (col. 2, lines 15-21), which is comparable to the 13.5 MHz clock of Kato (col. 4, lines 16-17). It would have been obvious to one of ordinary skill that image data produced at comparable clock frequencies have comparable resolutions. Therefore, the still images read out in the still mode of operation of Parulski would have a greater resolution, and thus, be of higher quality, than those read out in the motion mode of operation. One of ordinary skill would have incorporate the still image mode of operation of Parulski into Kato to make an apparatus that enables a user to switch from a motion mode of operation to a still mode of operation in which images of higher quality may be obtained.

Kato in view of Parulski do not teach that the conversion of still images to the motion video sequence is performed with firmware. Kato teaches that the conversion is performed using software (col. 3, lines 58-61). Kho teaches that either software or firmware may be used to implement a function (col. 2, lines 37-38). Therefore, it would have been obvious to one of ordinary skill in the art to implement the conversion of Kato in view of Parulski using firmware.

One of ordinary skill would have been motivated because it is well-known in the art that firmware and software are equally capable of implementing a step in a method.

Regarding claim 22, Kato teaches that the generation of still image data using JPEG, and the generation of a motion video sequence from still images using MPEG (col. 9, lines 12-14).

Regarding claim 23, Parulski teaches the generation of a first sequence of high resolution still image files in response to each momentary actuation of the trigger switch, and the generation of a second sequence of low resolution still image files in response to the trigger switch being actuated and held for a predetermined duration longer than the momentary actuation (col. 3, lines 16-32).

Regarding claim 24, Kato teaches an electronic viewfinder 28 (Fig. 1). It would have been obvious to one of ordinary skill to display selected ones of the high resolution still image files or the motion video sequence on the electronic viewfinder.

5. Claims 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, U.S. Patent 6,148,031, in view of Parulski et al, U.S. Patent 5,440,343, in view of Kho, U.S. Patent 6,167,473, and further in view of Nanba, U.S. Patent 6,297,870.

Regarding claim 15, Kato in view of Parulski in view of Kho teach the camera according to the limitations of claim 11. See above. Kato in view of Parulski in view of Kho do not teach the embedding of JPEG files in corresponding EXIF files. Nanba teaches that a frame may be treated as an image file of an EXIF format, and that each frame has information compressed by a JPEG method, which reads on embedded JPEG files in a plurality of corresponding EXIF files (col. 6, lines 45-48). The EXIF file format conversion component is inherently taught. Therefore,

it would have been obvious to insert the practice of embedding JPEG files in EXIF files taught by Nanba into the camera taught by Kato in view of Parulski in view of Kho to make a camera whose images are in an industry standard format. One of ordinary skill would have been motivated to make such a modification to ensure that the images captured by the camera are compatible with other technologies.

Regarding claim 19, Nanba teaches a display (LCD **10**) that permits the user to observe image data stored in memory (col. 4, lines 13-17). Kato teaches the storage of both motion and still images in memory (col. 3, lines 41-53). The means for driving the display and the means for permitting the user to selectively observe on the display a selected one of the image files stored in memory is inherently taught.

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, U.S. Patent 6,148,031, in view of Parulski et al, U.S. Patent 5,440,343, in view of Kho, U.S. Patent 6,167,473, and further in view of Aihara et al, U.S. Patent 6,223,190.

Regarding claim 25, Kato in view of Parulski in view of Kho teaches the apparatus of claim 11. See above. Kato in view of Parulski in view of Kho do not teach that a markup file is generated in response to user commands. Aihara teaches that an HTML file, which reads on a markup file, is generated whenever an image is captured (col. 7, lines 22-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the apparatus of Kato in view of Parulski in view of Kho with the practice of generating HTML files whenever images are captured taught by Aihara to make an image sensing apparatus that selectively captures still images or motion video sequences and generates HTML files from

them. One of ordinary skill would have been motivated to make such a modification to convert the images into a common format used for display.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dorothy Wu whose telephone number is 703-305-8412. The examiner can normally be reached on Monday-Friday, 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dorothy Wu

DW
June 1, 2004

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